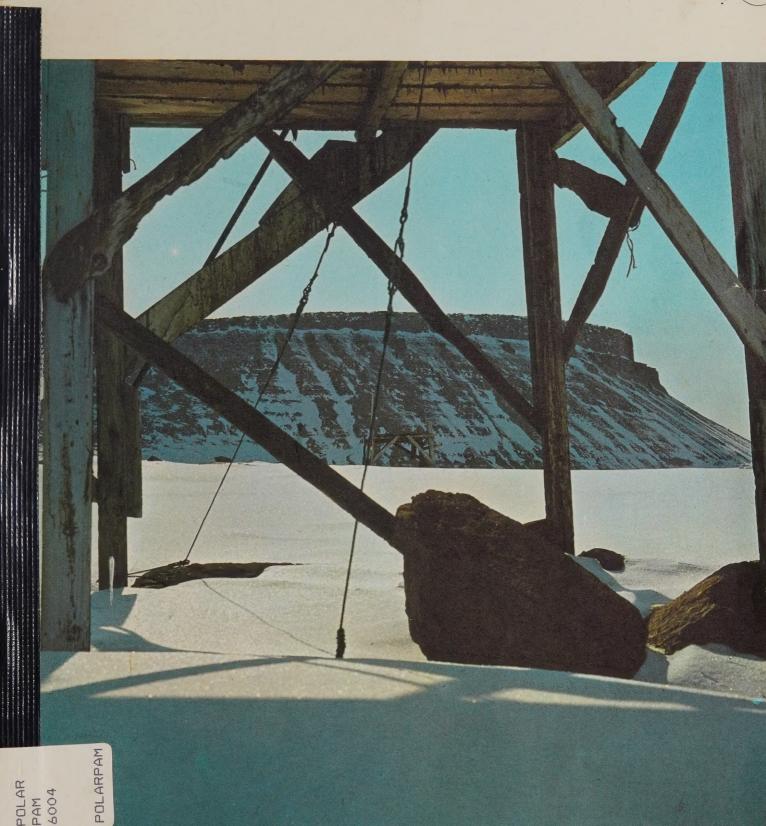
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COVER:

Landscape outside the township of Thule in northern West Greenland
In the background Thule Fjeldet (Thule Mountain)
Inside front cover: Modern apartment house in Godthåb
Inside back cover: The harbour at Holsteinsborg
Back cover: Sunset in Disko Bay

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Total area: 2,175,600 sq. km. (840,000 sq.m.) Ice-free area: 350,000 sq.km. (135,000 sq.m.) The rest of the island lies under the ice-cap.

Population (1966): 42,102. The population is increasing at an annual rate of 4 per cent five times as fast as in the rest of Denmark. A population of some 50,000 is forecast for 1975.

Situation: Most northerly point (Cape Morris Jesup) 83° 39'N.lat.

Most southerly point (Cape Alexander) 73° 08'W.long.

Highest point: Gunnbjørns Fjæld (south-east Greenland) 3,700 m. (12,000 ft.)

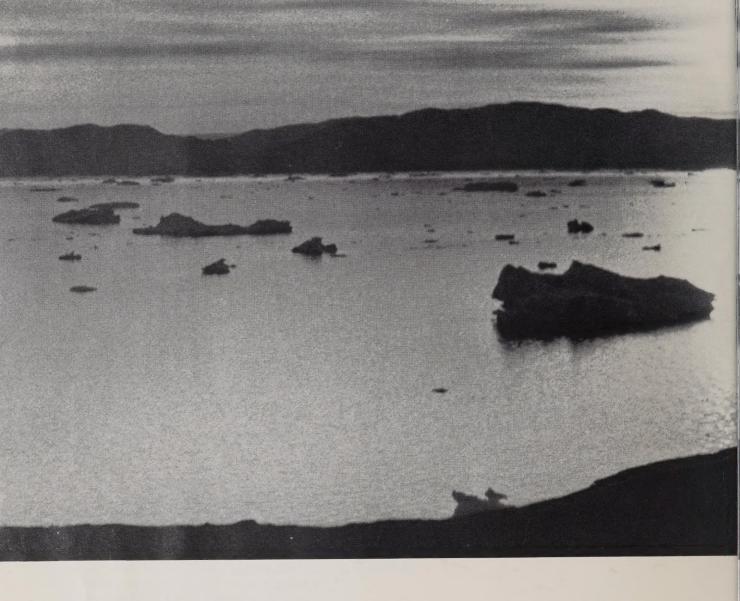
Administration: In 1953 Greenland became an integral part of Denmark. Greenlanders elect their own representatives to the Danish Parliament. Local government is now under the supervision of the Greenland Council. Since 1966 the chairman of the Greenland Council has been elected by the local population.

Occupations: The principal occupations are fishing, hunting and sheep-breeding, which engage about a third of the actively employed.

The largest township is Godthåb, with 6,000 inhabitants.

GREE

ILAIND



GREENLAND -A CHALLENGE

BY ERLING HØEGH

A Greenlander has to admit that not much is known about his country abroad. To children in English-speaking countries Greenland is 'the land of Santa Claus', to which they address thousands of letters every year; but otherwise few people know it except as a land of ice and snow, and perhaps as the world's largest island.

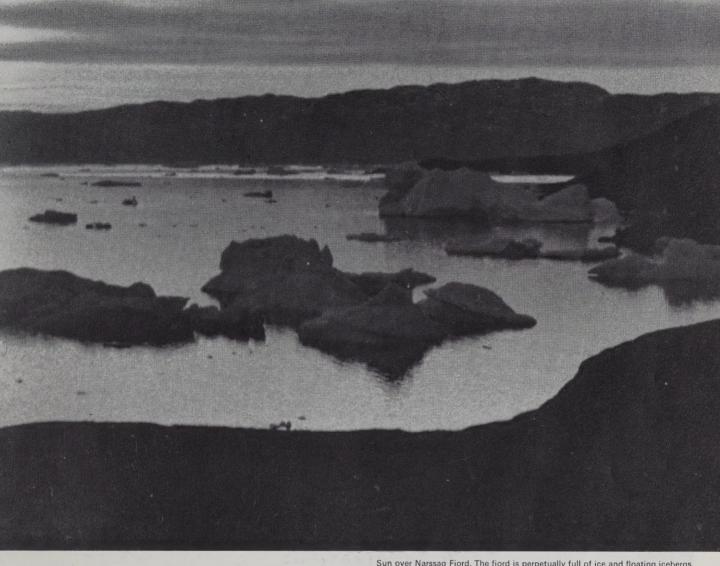
Yet as a Greenlander I am proud to say that my country is in many ways unique.

Greenland is equal in length to the distance from Scandinavia to the north coast of Africa; but by far the greater part of it lies under an ice-cap which at its centre is two miles thick, a relic of the Ice Age which has left its mark on many other parts of the world.

Only a narrow coastal fringe is icefree; but this presents a mountainous landscape which has few equals, ranging from bare Ice Age mountains with dream-like arctic valleys to weatherbeaten alpine peaks that have survived unchanged since the Creation.

At certain points on this inhabited coastal strip tongues of glaciers reach out and with a thunderous roar throw off enormous icebergs which float majestically in these unique waters.

There is nothing like the scenery of Greenland. Because of her scenery and her rich folklore, I think that before long our country will be discovered as a world tourist resort.



Sun over Narssaq Fjord. The fjord is perpetually full of ice and floating icebergs, which for part of the year can create difficulties for navigation. Narssaq is in south-western West Greenland, north of Julianehåb. It was founded as a trading station based on sealing in 1880. Population in 1964: 1,411,

A Faroese who visited it for the first time said this of the scenery:

'It is like the rim of the pot where Our Lord mixed the materials from which He created the earth; their hardened remains testify to the solid matter this earth is made of.'

Greenland is also in another respect unique. Since the war, she has developed steadily and peacefully from colony to integrated province.

Greenland and Denmark have been

together for centuries. First part of the dual kingdom of Denmark-Norway, Greenland then became a Danish colony. Since 1953 she has been a province of Denmark, represented in the Danish Parliament (the Folketing) and with increasing local government rule. While many countries have broken away in bitterness from their colonial rulers, in Greenland there has been neither conflict nor animosity. The new status of Greenland was the wish of her people,

as expressed through elected representatives; and desire for close cooperation has been emphasized on various occasions. That Danes and Greenlanders are and will remain fellow-countrymen has been demonstrated in many different ways, most clearly during visits by King Frederik and Queen Ingrid to the province, the last occasion being in 1968.

Many factors have contributed to this, in the post-war world almost unique development, among them the nature of





Prins Christian Sund, one of Greenland's most southerly townships, has only 20 inhabitants. It is close to a wonder of nature, a glacier from which tons of snow and ice break off and float

out to sea as icebergs.

Danish colonial administration over the centuries. From the middle of the nineteenth century, Danish policy was designed both to protect the native population and gradually develop it towards increased responsibility for its own affairs.

Another factor has been the friendly relations between the Danes and the Greenlanders. Despite difference in race, language and development level, they have learnt mutual respect. Many close ties have been established over the years and the modern Greenlanders are a mixed people, most of whom have Eskimo and European, especially Danish-Norwegian, blood. They are literally ties of kinship which bind the two people together, make Greenland's status of Danish province a matter of course, and provide a good reason for development and cooperation.

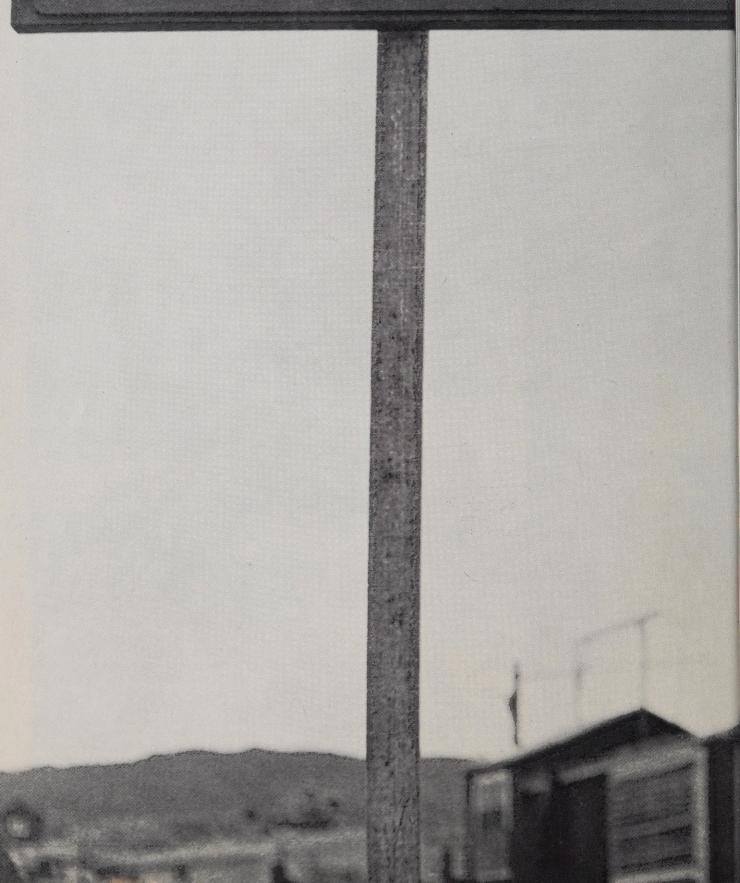
Greenland and Denmark belong together now more than ever. As a Danish province, Greenland is both an obligation and a privilege, as well as a challenge. Here Denmark can demonstrate her ability to cooperate, her technological skill, administrative ability and staying power in a process that calls for both economic sacrifices and patience. We in Greenland think that the Greenlanders and Danes have an opportunity to set an example of how a unique situation can be dealt with; but the success of the experiment will depend on hard work and good will by all.

Respect for the population of this former colony and its special character is crucial to the policy now being pursued. This respect is being displayed in every basic and central area. In the Danish Parliament Greenland members speak as freely as other elected representatives.

highest elected body Greenland itself, the Provincial Council, is so constituted as to enable every Greenland view and opinion to find expression. An amendment in its constitution two years ago ensures that it fully represents the electorate's wishes. Following a Danish-Greenlandic proposal, the council's chairman is now democratically elected. In my capacity as first elected chairman of the Greenland Provincial Council, and with the experience of many years' membership, I can say that it enjoys great respect with the legislative and financial authorities. No law affecting Greenland is passed by the Danish Parliament without the Provincial Council of Greenland having been consulted, and I can recall no example of legislation passed against the wishes of Greenlanders.

Furthermore, local self-government is rapidly developing in Greenland and duties and responsibilities are being progressively delegated to or assumed by the Provincial Council in connection with development. This process will

Kússangajänguak







Glacier at Jacobshavn in central West Greenland. The internationally known explorer Knud Rasmussen was born at this township, whose Greenlandic name—Ilulissat—means 'Icebergs'. Jacobshavn is a modern township. New harbour installations inaugurated in 1960 solve the problems created by calving icebergs. Submarine waves set up by these 40-50 kilometres (25-30 miles) away rose to six feet in the narrow harbour, causing great destruction.

A mountainous landscape ranging from bare Ice Age mountains to weather-beaten alpine peaks that have survive





Spring comes in Greenland with a rush. As soon as the snow has melted, the ground between the mountains is adorned with an arctic flora of captivating beauty.



Boatbuilding at Holsteinsborg, Greenland's second-largest township, population 2,448.

continue within limits set by the present constitution. No-one in Greenland wants independence or severance from the Danish Crown.

It goes without saying that Greenland, so soon after the transition from sheltered colony to integrated province, faces big development problems. Danes and Greenlanders are tackling these through cooperation and large allocations by the Danish Treasury for Greenland development projects.

The Greenland economy is encountering difficulties due not only to technical under-development, which is being remedied, but also to intense world competition and the inhospitable conditions. Fishing is the staple occupation. but the fishing industry, as in many countries, is experiencing both explosive development and marketing difficulties. We think that the products of the Greenland deep-sea fishing fleet now being built up, and the factories already existing in most townships, will be competitive on the international market by reason of quality, as the polar waters surrounding our coasts ensure raw materials of the highest grade.

Extensive geological exploration by Danish and foreign experts has revealed valuable minerals in Greenland. We may assume that mining in several areas is within reach. Foreign capital will be needed in order to develop this.

As already stated, we believe that Greenland will prove an important tourist attraction. The scenery can be breathtaking to even the most seasoned traveller. The requirements of a Greenland tourist industry will now be analyzed in Copenhagen with Greenland advice and guidance. Here, too, capital and specialized knowledge will be needed. We shall have to build hotels and establish better and quicker communications. The

first steps have been taken and development cannot be long delayed. Tourist travel to Greenland will be, as regards scenery, a journey in time, in that the tourist hotels will be situated on the limit of the Ice Age that in other countries is geological history.

On the Provincial Council we are alive to all these existing and future possibilities, and there are major development projects which have to be financed. Last year, the council took over full responsibility for the province's social system. There is agreement among Greenland politicians on a social reform policy that will put our country among the most advanced in the world. The costs of this reform, already well on the way, will be borne by Greenland, with a 30-per-cent contribution from the Danish Treasury. Besides assisting such persons as may be in need of public help and support, it will aim at inspiring the creation of the dynamic development necessary in a small community like ours. Social investment will thus be an investment in our country's future.

Greenland's geographical situation, exceptional natural conditions and immediate development possibilities give her people plenty to think about and to work for.

We draw our courage to face the future from our confidence in the continued, unselfish support of our Danish fellow-countrymen and our knowledge of the skill and strength of our Eskimo forefathers in overcoming even the most daunting of natural obstacles. We want to be worthy heirs of a great past. Our destiny is as theirs was: to inhabit the most inhospitable region in the world, facing a constantly threatening sea, with the ice-cap behind us and the North Pole and Arctic Ocean as our nearest neighbours.

OPERATION NEW TIMES

BY PALLE KOCH

Many different pieces go to make up the pattern of modern Greenland and it needs patience to assemble them. But it is possible to come across one or other which points up the picture by itself.

There was one in the Godthåb newspaper, *Sermitsiaq*, an advertisement by the municipality of the capital for the local baths, which included this special offer:

'Besides an ordinary bath you may also have a steam bath – good for body and soul, and helps to prevent stress.'

Now it should be said that there are more people in Godthåb who still have no idea what stress is than there are who could do with daily exposure to wonderworking steam; but the unique phenomenon of our time can now be said to have made its entry in a country long



Winter scene at Egedesminde, Greenland's third-largest township, on the west coast.

The plane shows that the picture is not a new one. Local flying in Greenland now is by helicopter.





The airfield at Søndre Strømfjord, in central West Greenland, constructed in 1944. It is now the centre of air traffic between Greenland and Denmark, as well as the main station for domestic air services. The new administrative buildings, architects Tage Nielsen and Greenland Technical Organization, were erected in 1966. Modern times have made their entry here with noisy jet planes, but the past has not altogether abandoned Søndre Strømfjord. Musk oxen frequently appear on the mountain behind the buildings, and an occasional musk ox has disrupted jet traffic by disporting itself on the runways.

ourist travel Greenland ill be a journey time spared from it. Along with other hectic things, it is claiming a place in the overall pattern: a symptom and perhaps a danger signal.

There are those who think Greenland's switch to Danish and European rhythms is too fast. In public discussions of the aims, practice and first results of development policy voices are being raised with increasing frequency against technological development too hurried for people to keep up with. They quote John Kenneth Galbraith's warning of the sterility of economic monuments standing isolated in a sea of ignorance. Greenlanders and Danes whether the price of future efficiency will be too high, if efficiency is to be such an overriding aim that human happiness will not have a fair chance of slipping in with it.

It does not follow that these people question the need for recent massive investments and the resultant material advance. They only want to give a timely warning of the possible consequences of a gap between technological achievement and man's ability to adjust himself to structural change. They want a onesided development replaced by one that is harmonious; one that would avoid a situation where people would fail to feel at home in their brave new world. A Greenland politician has just had recourse to terms like 'alienation' and 'loss of identity' to describe a situation that could be his fellow-countrymen's. In short, the greatest challenge to joint Danish-Greenland endeavours must lie in establishing a harmony between technology and humanity in its widest sense. No-one expects that this will be an easy balance to maintain.

From colony to province

Greenland has now been in process of transformation for more than twenty years. It was in 1948 that the Provincial Council, assembled at Godthåb with the Danish Prime Minister, the late Hans Hedtoft, answered affirmatively the question whether the Greenlanders wanted to initiate development towards a fully modern society, with all the consequences which that would entail. The response led to the appointment of a Greenland Commission, whose recommendations two years later inspired extensive legislation initiating the new order. In the new Danish Constitution of 1953 Greenland was made an integral part of the kingdom, and the following year two Greenland members of the Folketing, Augo Lynge and Frederik Lynge, attended Denmark's withdrawal from the Committee for Non-selfgoverning Areas at United Nations headquarters in New Greenland was no longer a colony; its status as an equal part of the kingdom had been testified before a world forum.

The documents were in order; the equality had to be won in practice.

The structure of Greenland society was beginning even then to be slowly reshaped in the service of efficiency. If a new Greenland was to have any hope of profiting from various modern amenities it would be necessary to operate with bigger units. The old pattern of hunting communities, with small and scattered settlements - a pattern occupationally justified earlier - could not be maintained by a population whose main occupation now would be fishing and its associated industry. The process of urbanization had to go on. For many Greenlanders this has been the first stern encounter with the law of change: though it has enabled more of them to pass unscathed into the new times. There was not yet - in the mid-1950s any direct talk of concentrating the population. This only became a reality in the 1960s, when it was decided to concentrate the development of West Greenland on 'open-water' townships, whose situation permits navigation and fishing all the year round.

These, today, are representative of the great building activity of recent years. This can sometimes make it difficult to see township for building sites; difficult for Greenlanders to know what is really going on around them; difficult for them to find an anchorage under so radical a departure from the old traditional ideas of how things should be.

An outsider hearing of these problems may well ask how large is the population involved in what might be called 'Operation New Times'. When told that it is under 40,000 – equal to the population of a medium-sized Danish town – he may think it a rather easy problem when compared with development projects elsewhere. It is less simple for those directly concerned, and they have long since ceased to think in terms of simple solutions.

Immensity of the problem

One must bear in mind that this region covers a vast area and is in one of the bleakest parts of the world; moreover that it is split up into a great many small townships and settlements, without communicating roads and with only sea and air connections – climate permitting. The arctic climate can play havoc with timetables and helicopter schedules. One can feel terribly isolated on this long stretch of coast; and to live there is to learn a lot about patience as one waits for a ship with supplies from Denmark.

Futhermore, few localities are so alike in their basic structure as to have common interests and identical desires in regard to development. It follows that there can hardly be any standard solutions. A pattern of development appropriate to a township in the south-west will be out of place further north. On one site you may have to build high owing to shortage of space; on another, houses of low height may be necessary because of the tempestuous climate. Harbours and factories must also be adapted to varying natural conditions. Even when the desired concentration of population has been achieved and small settlements that are difficult and uneconomic to maintain have been abandoned, the bulk of the population will still be widely dispersed along a coast equal in length to the Danish, West German, Dutch, Belgian and part of the French. Only by Greenland standards will it be concentrated

Added to these natural barriers are other obstacles of a different sort; some that could have been averted, others which are unavoidable. The complaint has often been heard that 'development

has run ahead of plans'. And when that happens, plans can run off the rails and much valuable time be lost getting them back on again. After the constitutional change in 1953 an intensive effort was made to improve health conditions. Gratifying results were achieved, but they were accompanied by a population explosion which made almost impossible demands on new housing, social services, education, and technical training. Budgets have had to provide for development over a wide front, but at the same time the priorities must be kept flexible, because one sector can suddenly call for special attention. Planning policy must therefore leave room for improvisation and necessary adjustment. One year, sheep farmers in the south may experience disastrous weather; the next, hunters in the north can encounter difficulties; or the fishing industry may be

unlucky, as it has been recently, partly because of exceptionally severe icing, partly owing to adverse marketing conditions. None of these calamities is self-inflicted; but they hit hard, because they hit an already vulnerable community.

The human investment

Everything that goes on around him involves the Greenlander in a risk of losing not only contact with his ancient way of life in the natural, traditional environment but also what his political spokesmen call his 'identity'; by which they mean his identification with a new Greenland, the acceptance of the – for him and his fellows – immense, and immensely accelerated, transformation, one which in other countries has taken centuries, without sacrificing his heritage, his individuality.

MAN AND MILIEU

BY HENNING JENSEN

Time and again one must ask oneself why towns and buildings in a country as far north as Greenland still tend towards West European tradition, and why human ideals are similarly taken over from other countries, seemingly with little regard for climate, former traditions, and way of life. One reason appears to be the incredible potentialities of our age for rapid communication. Everything around one can thus be compared with what others have or do not have. Material amenities are gradually turned into universal demands. Their fair distribution becomes a matter of concern - in Greenland also.

This fact, taken in conjunction with a human characteristic which seems universal – need of prestige, desire for self-assertion through visible symbols of affluence, knowledge or skills – may partly explain why men – particularly in our own time – seem to defy both surrounding nature and their own in order to ob-

tain amenities others are known to enjoy.

Any form of planning, also of society, towns and houses, is based on experience, statistics, analysis, research, and imagination. By these means the planner and the technician often come to think of many problems as universal, requiring an identical solution regardless of climate and habit. World trade in fish products, for example, ignores the fact that it is hard to catch fish in Greenland at international price levels. So - as everywhere else - we try to cope by establishing fish processing plant, and by acquiring bigger ships and trawlers. Retail trade can, as advantageously in Greenland as elsewhere, employ self-service and large-scale methods - and does.

Building in Greenland can with economy of time and money be industrialized – and we are doing it. With greater weight than in Denmark we can in Greenland assert the need for building components to be made more uniform.

Stores, freight, building processes, maintenance and much else are considerably simplified when choice is limited.

Industrial and type building

It has always been the architect's pipe dream to be able to create buildings that are in harmony with their surroundings - at its extremest to achieve an almost organic interplay of building, town and landscape. These ideals have gained today another perspective. When whole neighbourhoods are seriously planned to a pre-selected building system, decisions of any kind will have far-reaching importance for human well-being. Advantages and errors will be on a gigantic scale. Cranes and building systems, technology and economics, tend to create their own values and norms, which can be difficult to reconcile with environments and human objectives. On the other hand, the architect now has greater possibilities of creating intelligible entities.

It may seem as though at present the more frivolous benefits of technological and material progress are the ones most readily accepted, but that should neither surprise nor shock: growing pains can be got over. What on a long view may cause uneasiness is a feeling that the Greenlander may not derive full advantage from the 'human investment' which the plans also envisage, but which have not yet achieved the same great and visible results as technology. Also, one fears he may come to feel that development has passed him by, for the reason that it was mainly created in such advanced conditions that he could only on a limited scale be personally involved. Not from any desire to exclude him, but because the job was urgent.

What is urgent now, with so much sound infrastructure already established, is to get the Greenlander a seat at the controls. It is of no use to push on without him: giving him new townships where he does not feel at home; jobs that are strange to him; a country where he feels he does not belong.

What is urgent is to achieve a breakthrough in popular education and popular backing for the new times: a general rally of support for the declared aims at national and local level, in order that life in the new and rapidly growing townships can develop a sense of community. Without it they can become centres of apathy and social unhappiness. perhaps more serious to set right again because they are already highly vulnerable through their isolation and climate.

The common Danish-Greenland policy is striving, as energetically as it can, to draw the Greenlander into as many social activities as possible: to involve him in a co-partnership; inspire him to greater personal initiative. Many Greenlanders have already shown themselves capable of living up to the new demands, but the more backward ones must also be engaged before it can finally be said that the latest 'equal part of the Danish kingdom' is an equal in actual fact.

The chances of a successful outcome of Denmark's greatest development project must remain for some time an open question. One is inclined to pause mid-way between confidence and doubt; yet with the hope that a people who have survived for thousands of years the extremest of natural conditions will also have strength to survive into the new society, with courage to face changed ways, and with the essential qualities of their ancient culture still intact.

Into this world comes the feverish and noisy activity of today

That is where building stands now—and is coming to stand in Greenland. In one way this importation of the industrial products and ideas of the welfare state can strike one as a caricature; in another, there is something fascinating in itself about creating towns, buildings, communities and well-being in defiance of difficult conditions. And it is a relief to be able to skip at least some of the mistakes that welfare states have made (and learnt from).

Town and landscape

The Greenland landscape has great and dominant features. Townships and settlements are infinitesimally small in comparison with their vast surroundings. Distances between inhabited places are very great. The township when seen from without – from ship or plane – will always be dominated by the natural environment, sometimes to such an extent one finds it hard to understand

that man has created an existence for himself at this place.

Once you are inside the township or settlement, however, buildings and other creations of man take on a peculiarly aggressive significance. No trees or shrubs cover up mistakes, or provide transitions. On the contrary, every building process, every road, sewer or mains system, will for a long time leave a typically flattened nakedness all round it. The country's sparse vegetation struggles generally for existence in this severe climate - and so has difficulty in also resisting rough usage by man. Order and harmony in the township between buildings and roads thus have great importance. Here especially, this is a time of tension between the old and the new.

The old and the new

All townships and settlements used to consist mainly of wooden houses of one or one-and-a-half storey, dominated by the church and some large warehouses adjacent to a jetty in a natural harbour, the houses often painted red or in other vivid colours, and having pitched roofs and white-painted windows.

As the family's subsistence depended on the hunting of marine animals, the houses were often sited high up, commanding a view of the sea. To avoid foundation problems on permanently frozen ground, they were built on rocks, where there were any. These two primary requirements involved a - by our standards - rather chaotic and haphazard development, with houses in every size, direction and altitude and every possible colour. Yet over all a distinctive diminutive charm against the great landscape of sea and icebergs. In winter, snow and ice. Everywhere dogs and sledges, kayaks and umiaks, skins of seals and reindeer, ptarmigan, fish and hunting prey, smell of train-oil and blubber.







The immutable Greenland of the abandoned settlements. To enter a deserted settlement is to encounter silence at its most oppressive.

New hostel and school home at Egedesminde. The buildings were erected on concrete foundations adapted to the broken terrain so as to allow melt-water to flow under them. They are also protected against ice packs from the beach. Behind the hostel is the general canteen, with a view of the sea. The older building to the left, the former continuation school, is typical of official buildings of the time. Behind the hostel buildings is the new school. Architects: Henning Jensen and Torben Valeur.



The old Greenland jammed between the new. Industrialized building is becoming more and more general. Most supporting walls and floors are of concrete, outer walls and roof being

To sail into an abandoned
settlement is to encounter silence
in its most oppressive form



Part of Godthåb, Greenland's largest township. The estimated population in 1975 is 15,000, the limit set by the area at present available for development. New areas will have to be incorporated after 1975. The picture gives a clear impression of the clash of old and modern styles. The six-storey house block is the first stage of projected apartment development on the plain in the township's centre.

Buildings and other creations of man take on a peculiarly aggressive significance



Housing development at Christianshåb in West Greenland, architects Henning Jensen and Torben Valeur, constructed 1964-68 as part of a major general development project. The buildings surround a large rock and are staggered to fit the contours. Earlier constructions under this plan are a school, hospital, office block and shops.

Into this world comes the feverish and noisy activity of our time. At the Greenlanders' own desire, lawfully and inevitably, a rapid development into a modern westernized society is taking place. While the individual township is given new buildings at a limited tempo, there is a possibility of gradual adjustment to existing environments. So, to some extent, it has been in the past 17 years since the new era began. More recently, however, development has gained greater momentum in townships that have been found suitable for industrial and urban development, 'open-water' centres from which fishing

can be carried on all the year round. This has involved migration and building on a considerably larger scale. Any real interplay of old and new has thus been rendered difficult – in some cases impossible. So today a greater attempt is being made to divide townships into old and new quarters.

Town planning

Town planning has often been a prior condition, although it has frequently had difficulty in keeping pace with rapid – and frequently changing – development. So planning has in recent years been greatly intensified; there are now hard-

and-fast development plans for most major townships, providing a good working foundation for politicians, planners, and technicians.

In a country where low temperatures, snow, gales and darkness are major factors, township and dwelling must give shelter and security. The actual buildings must be stout, sturdy and protective. Urban developments must provide shelter, enclosing and sheltering central parts and allowing other parts open access to sea, view, and occupation. Town planners and architects are endeavouring to give each township an identity of its own by adjusting various



Sledge dogs are a conspicuous feature of the scene in North Greenland: ubiquitous, omniverous, a pack of one living, growling, howling, and ferocious mass of bristling coats, wagging tails and sharp fangs. They are dangerous animals, especially to falling children, whom they can take for food being thrown to them. Not all packs are kept enclosed, and as sledging is no longer necessary but has become rather a sport, some doubts are felt about maintaining this tradition.

At Sukkertoppen in West Greenland the mountains contribute immensely to the street scene. Even large house blocks play no significant part in the overall view.

elements in it to the special characteristics of the locality.

This is what the planners have envisaged, for example, at Godthåb, Greenland's largest township:

Godthåb is situated on a promontory, with lengthwise the contours of ridges, formed by ice action in the glacial period. The directions of road system and buildings will be planned to follow this general line, which moreover is favourable to prevailing winds and utilization of sunshine in houses and offices. On the mountain tops there is an unrivalled but bare view; in the sheltered valleys between the ridges, rich vegeta-



tion. All this will be turned to account in the planning. The level plain in the centre of the township, formerly a green swamp, will be used for industrialized house-building, schools, institutions, and town centre. The town centre is envisaged as heated, under-cover shopping streets, surmounted by offices.

Another example is Sukkertoppen:

Sukkertoppen clusters round a complex of mountain crests, narrow valleys, and large and small islands. In many respects the place is unsuitable for building. Further development of the township, therefore, will call for employment of concentrated building forms. Blocks of 8–10 storeys will be built. The mountains are a massive feature of the townscape, giving this township its special character. Islands will be linked by embankments and bridges to sheltering harbour constructions. Old harbours will be filled in so as to form level areas as part of the town centre.

Site cultivation

For many years there was enough to do getting the current buildings, harbours, roads, etc, finished on time, with pressing new problems to follow. There was never time for a breather, let alone for clearing up. Gravel, rubble and untidiness followed every completed job.

design gardens with these alone. Many of the plants themselves indicate the method to be applied. Mountain moors in Greenland have characteristically large expanses of chiefly the same plant. When the heather is in bloom, when bog whortleberry and dwarf birch are a blazing red in autumn, when various willows display their yellow catkins, a captivating play of colour is revealed. By employing these and other growths in large beds, each bed planted with its own variety, coloured surfaces can be provided for all seasons. The beds can be terraced by means of stone walls.

A Greenland garden or park must chiefly be based on a succession grown on the terrain (the garden's 'floor'), supported by rock, buildings, stone and retaining walls: a garden design which could form a parallel to the distinguished old Japanese garden. Unlike European garden tradition, founded on a spatial interplay of buildings, trees, lawns, and flowers, many Japanese gardens are based on an interplay of stones, rocks, gravel, and low, cushion-forming plants — a motif design natural to the Greenland garden.

Planner's dilemma

Planners – in the widest sense – shape human environments with the help of research, statistics, plans, projects and



Formerly, all townships and settlements consisted in the main of wooden houses of one or one-a-half storey, dominated by the church and some large warehouses by a jetty and a natural harbour, the houses often painted in red or other vivid colours, and with saddle roof and white windows.

We have only recognized within recent years that there must be both time and means not only for clearing up but for making at least the nearest environs ripe and attractive for people. The once so rough and crude townscape surrounding new development seems on the way to becoming a gentler and more congenial milieu. Blast rock is now used for constructing dikes and ditches bordering roads, buildings and gardens. In the last few years grass has been successfully sown. The method is simple, being based on the fact that there is a grass for practically every soil, even for pure sand or gravel.

Ideas of parks and public gardens are also emerging. While there is no gardening tradition as such in Greenland, so many distinctive plants and shrubs grow wild there, that it will be possible to expertise. The processes are started – or stopped – with the help of economists and politicians. The mother country has the required experts, skilled workmen, etc, and can easily 'smother' a small population by sheer good will, enterprise, efficiency and superior knowledge.

The most difficult part of development will continue to be that of achieving harmony between people, way of life, means of occupation, towns and buildings, communications, knowledge, initiative, faith and doubt – everything which makes a community in harmony with itself and having faith in itself.

The architect plays a minor part in this overall scheme; but he can help to shape the outward and visible environments so as to make them a boon and an inspiration to the Greenland people.

FROM KAYAK TO TRAWLER

BY CHRISTIAN HØY

The economy of Greenland, from the very earliest times, was based almost entirely on seal-hunting, for which the Greenlanders developed a highly advanced technique.

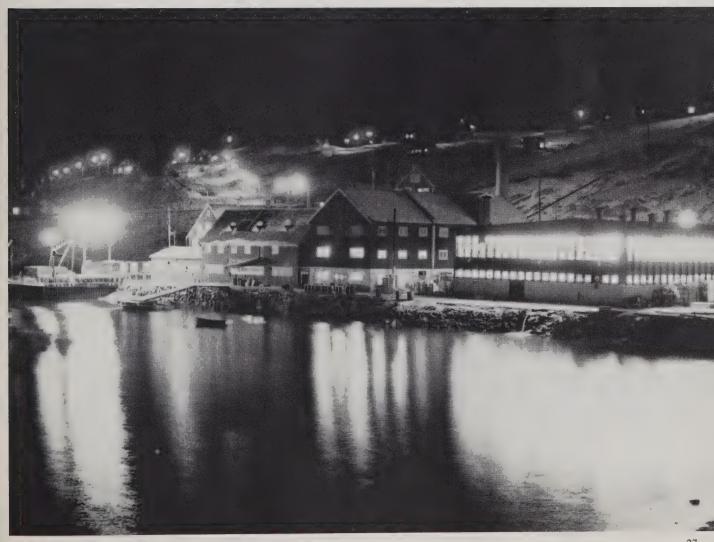
The seal was chiefly hunted from kayaks, as it also was in Canada, Alaska and northern Siberia, except that in winter it was netted from the ice. Its skin, flesh and blubber were the chief means of subsistence, the skin providing clothes, the flesh food, and blubber lighting and heating. Sealing was an extremely individual occupation, the whole status of the hunter and his family being dependent on his skill. Fishing was a last resort when sealing failed, and well into the present century was disdained as an occupation fit only for women.

A stranger to Greenland cannot help but wonder how people can have lived here for so many thousand years. They could only do so by means of frugality and a dogged struggle against nature, and by evolving a unique hunting technique. Even so they lived at subsistence level. The tough Norsemen who settled in Greenland in about the year 1000 and lived by a combination of agriculture and hunting succumbed after a few centuries. Yet the Eskimos were able to defy both famines and the severe climate; probably because of their greater knowledge and experience of Arctic

Hunting is conditional on a plentiful stock of seals and a dispersed population. Until very recently, the population of Greenland lived in many small settlements scattered all along the extensive coast. Then in the middle of the nineteenth century the number of seals began to decline while at the same time the population expanded. The result was a drop in living standards.

For many years the population grew steadily poorer, and then, in the mid-1920s, considerable shoals of fish were observed off the west coast and in the

Shrimp factory at Christianshåb on the west coast. Inaugurated in 1960, the factory is one of the most up-to-date of its kind in the world. Machines grade the shrimps by size, and have a capacity of 2,500,000 cans of 80 grams (about 3 oz.), including a million machine-peeled. The shrimps come from immense grounds in Disko Bay and off Narssaq. The grounds were discovered in 1948 by Danish fishery biologists, but owing to ice the shrimps can only be caught (at depths of 1,000-1,300 feet) in summer, when the nets are worked round the clock



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Greenland strong enough o allow 'relapses' he past



Sealing was an extremely individual occupation, the whole status of the



status of the hunter and his family being dependent on his skill fjords. The discovery attracted foreign fishing vessels, especially to the banks in Davis Strait. Although the total haul of all varieties rose from 200,000 tons to over 500,000 tons in 1962, only a tenth of this was caught by Greenlanders.

Those Greenlanders who have to live solely by fishing or hunting must be prepared for great seasonal fluctuations, as well as good years and bad. The rigorous climate and widespread ice are crucial factors at the best of times. The East Greenland current, which carries enormous masses of ice from the polar basin down the east coast, round Cape Farewell and up the southern coast of West Greenland, involves fishermen in the south in heavy losses, preventing them from putting to sea for days on end and causing great damage to vessels and implements. In the north, where darkness and ice prevent any sort of navigation in winter, the fishing vessel gives way to the dog sledge. Factories also have to close.

Although Greenlanders have always been accustomed to fluctuating conditions, the rather long spells of inactivity mean hardship for individual fishermen and the industry as a whole; in fact make it problematical whether fishing can be profitable in these fringe areas. However, fishing is now the country's principal occupation, in spite of the difficulties and intense competition from major fishing nations. There is intensive trawling all along the west coast and foreigners employ large factory ships on the banks in Davis Strait. This is perhaps one of the reasons why cod fishing has declined near the coast and in fjords during recent years. It is to be hoped that the development of the Greenland fishing fleet and the building of processing factories will enable local fishermen to compete.

The transition from kayak to trawler is a big leap forward for the Greenlander, and entails intensified training in navigation, engine knowledge and use of tackle, as well as methods of processing in factories. The fishing fleet's efficiency also depends on the development of services, shipyards, ship chandling, etc. Most foreign ships are of 400 grt and over, and are built with superstructures. On such vessels it is possible to work in sheltered conditions under cover, and so to operate all the year round even in the Arctic. As yet, Greenland has only two vessels of over 200 grt and with superstructure. A few line vessels of 50 - 100 grt operate in Davis Strait with long line and trigger; recently, in the light of Norwegian experience, also with nets. The Faroese also fish in small craft along the coasts, though only from May until the end of September. Fishing by Faroese off Greenland has for many years been of great importance to the development of the Greenland fisheries, even before

Whales may still occasionally be landed at Godthåb; and although the township now has modern supermarkets with well-stocked deep-freezers, a freshly caught whale can compete. When a whale is reported, old women at Godthåb will hurry down to the shore with a flensing knife in one hand and a plastic pail in the other.

they began to be industrially developed. Many young Greenlanders have gained their practical experience on Faroese vessels fishing off Greenland.

Most Greenland fishing craft today are in the order of 3 – 25 grt (20–25 ft), and their navigation in these waters is

highly dependent on wind and weather. Their use is confined to inshore fishing in the period from November to May, when they are unable to operate in Davis Strait owing to risk of icing up.

The species caught are: cod, for salt fish, frozen fillets and deep-fried

products, together with canned liver, roe and guts: deep-sea shrimps, which, after peeling, by hand or machinery, are either canned or frozen; salmon and rock salmon; Greenland halibut and common halibut: rose fish; and wolffish.

Some whales are also caught, but are

The frail kayak, the Greenlander's indispensable ally in the hunt for seals through the centuries. Although the kayak has been superseded in most places by trawlers, it is still used in North and East Greenland, where sealing remains a major occupation. In these parts children learn the difficult art of rowing a kayak in the proper way at school.



consumed locally. Cod can be taken all year round at various places and depths, depending on the seasonal temperatures. The shrimps are caught in fjords and off the coasts at depths of 1,000–1,300 feet. In the south catches have been declining since 1964, according to marine biolo-

gists because of changing temperatures and currents. The main supplies for the factories at Christianshåb and Jakobshavn in the north come from large beds in and around Disko Bay. In summer, when there is midnight sun up here, the factories work round the clock process-

ing the shrimps as they arrive 24 hours after being caught, at the latest. The fleet could catch far larger quantities than the factories can at present handle (30–40 tons a day), owing to restricted capacity and shortage of female labour. Shrimp-catching in the Disko Bay

Cutter entering Christianshåb with freshly caught shrimps in all its boxes.



district is typically seasonal. When winter sets in with icing and polar darkness, all navigation has to cease and crews resort to hunting and fishing from the ice. In this the Greenland dog sledge is a vital means of transport. Winter fishing is centred on crabs and halibut, which are caught from holes in the ice at a depth of about 1,000 feet. Sealing is also carried on in winter, and provides a useful supplement to the family diet up to May, when the ice breaks and the fishermen can begin supplying shrimps to the factories. Hence in Disko Bay, one of the most beautiful parts of Greenland, fishermen fall back on the traditional hunting in winter, and in summer turn to modern trawl fishing.

In the late 1950s, salmon appeared in the fjords in September, and salmon fishing has been of great importance to the Greenland economy during the last ten years, despite some initial difficulties because experience of salmon fishing in the Baltic and other European waters is not immediately applicable in Greenland. Faroese were the first to fish salmon, but a number of Bornholm fishermen now operate with drift nets off the north-west coast. These successful experiments have given inspiration and encouragement to Greenlanders in this field. The most profitable salmon fishing takes place at the end of the year in a zone 3 - 50 nautical miles from shore, where vessels have to be at least 50 grt to avoid icing up, and must be equipped with radar.

The Greenland fishing industry is intensified year by year; the fleet is being expanded and new processing factories are being built. The quality of the products is officially controlled in order to ensure a high standard of raw materials and hygienic production. The first Greenland trawler of 500 grt, now under construction, is expected to operate in Davis Strait some time in 1969, and will enable Greenland fishermen to take part in deep-sea operations. Training facilities have also been developed. A school of navigation at Godthåb has trained Greenlanders as coastal skippers since 1962, and it is intended, also at Godthåb, to establish a seamen's school. Further schemes aim at training engineers and carpenters for Greenland shipyards. There is a shortage of regular workers in the factories, as also of personnel with adequate bilingual qualifica-

The chief occupations after fishing are hunting and sheep-rearing. Hunting remains paramount in the north and east. Its exports have suffered from fluctuating world demand for sealskin, together with fluctuating yields.

Sheep-rearing, which has been carried on in the south for only a little over fifty years, has been maintained despite some disasters, and some sheep products are sold in Denmark and for export. Greenland can offer the tourist magnificent and unforgettable scenery: glistening icebergs, vast panoramas, green mountains, white glaciers. The dramatic climate is a further attraction, with clear sunshine in the dry, still air giving a special brilliance; or with storm, snow drift or fog. Nature in Greenland renders man small and insignificant. The picture shows fishing vessels sailing between Julianehåb and Nanortalik,







SOCIAL RESEARCH

BY ROBERT PETERSEN



'Give me winter, give me dogs, and you can keep the rest', Knud Rasmussen, the explorer, once said. This is the Thule hunter Taitsianguarratsiak crossing the Inglefjeld Bredning, while cutting a new lash for his dog whip.

There is a great difference between social research in Greenland today and in the past, when the main interest was in material culture. Now scientists are mostly concerned with the study of communal forms, both those in the past and those being created in the expanding industrial society of today. By analyzing traditional forms and the processes of change, they can make their contribution to solving the problems of planners. Modern research thus has both a theoretical and a practical aim.

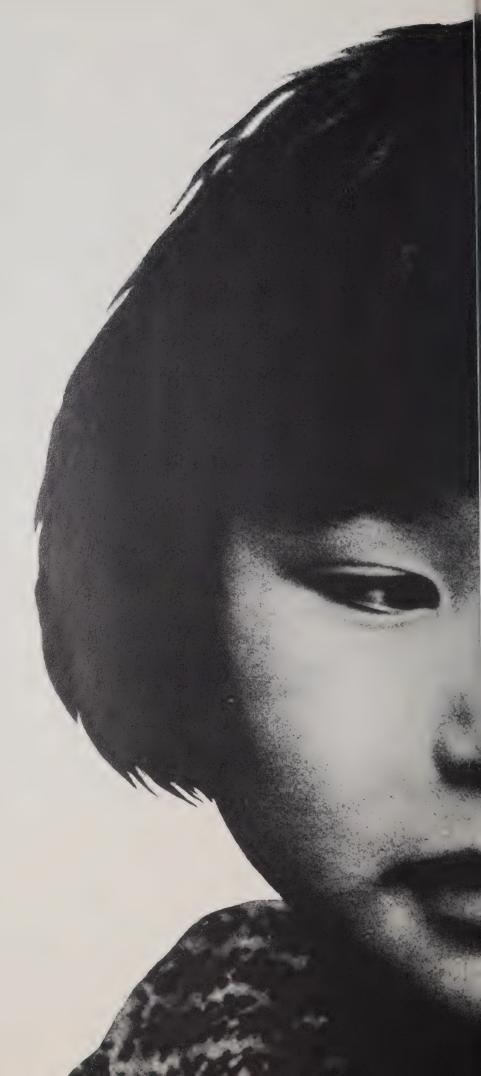
The literary side of social studies in Greenland has a long history. Earlier students described settlement life, life in the communal houses, child-rearing, witch doctors, etc, but interest turned later to material culture. This dominated Danish Eskimo studies down to the present day, though they have been supplemented in more recent years by an interest in Greenland folklore.

A break in this line appeared briefly with the scholar and administrator Hinrich Johannes Rink, who in the period round and after 1850 studied the causes of social and economic decline in West Greenland. Rink's deep interest in the values of Greenland society led him to collect tales and legends; and while his studies of social organization were not followed up in Eskimo research, the interest in folklore carried over into our own time.

Rink's starting-point was his wonder at the evident economic and social decline, though the traditional postulates of decline in primitive people who came into contact with Europeans, namely settlers, firearms and 'fire-water', were absent. Rink studied the earlier accounts of Greenland society; and while earlier scholars had speculated about the peaceful conditions of a society without laws and without authorities, Rink reinterpreted their descriptions. He could see that there were both laws - if unwritten ones - and authorities, the shamans. Matters of law and justice were settled by song contests, or in more serious cases by blood feuds, which Rink classified as war: a lawful means of settling major disputes. He showed that these institutions were destroyed by Europeans, who were blind to unwritten laws and wanted to introduce their own. Missionaries early demonstrated their hostility to the shamans, instead of allying themselves with them. They opposed the song contest they did not control, and the blood feud was put down because it was regarded as murder and a breach of the fifth commandment.

Rink viewed the break-up of these as detrimental, because the basic institutions of society thus disappeared and nobody made any attempt to replace even one of them. Thus he was a pioneer of functionalistic ethnology long before its theories were formulated.

As an administrator, Rink was in a





position to pave the way for the realization of his ideas. An elected advisory council was set up in 1862, and became the forerunner of the present Provincial Council. As the great hunters in those difficult years had to help many people in need, Rink provided encouragement in the form of allocations from surplus funds of the council, the amount depending, among other things, on the catch.

The study of Greenland society slumbered for many years after Rink. Meanwhile, however, Danish ethnology developed; but on reaching Greenland centred mainly on the material culture. Eyes were deliberately closed to 'foreign elements'; and even the development of new occupations, such as fishing, husbandry and sheep-rearing, was thought to be without interest. Only younger ethnologists revealed a growing interest in change and adjustment in the new Greenland society.

Although new occupations began to develop about 1920 and quickly overtook hunting, it was only after Greenland's integration into the kingdom in 1953 that its isolation was effectively broken. The Greenland Commission's recommendations resulted in a series of new laws, and the possibilities of social research were enhanced with the introduction of a new criminal code and a new marriage law, which inspired research into their social effects. The desire arose, in the 1950s, to carry out a general study of the consequences of all this legislation arising from the commission's recommendations.

The result was the appointment of the Committee for Social Research in Greenland, which, under the chairmanship of Dr Franz From, a psychologist, and with Dr Verner Goldschmidt, a sociologist, as head of research, drew up an action programme. The committee's members carried out extensive field studies, notably in Disko Bay, and described the West Greenland situation in a series of reports (see *Danish Foreign Office Journal*, No. 58, 1967). In these they indicated a number of possible solutions and some connected problems, leaving decisions to the politicians.

A lively debate was taking place on the alcohol problem in Greenland at the time, and alcohol consumption in West Greenland was the subject of one of the reports. The author, Georg Nellemann, of the National Museum, surprised many by concluding that drinking was not to be regarded as a social problem but as clearly a personal problem, aggravated by the smallness of the community. The abolition of alcohol rationing in 1955 was at first followed by a small rise in consumption and afterwards by a drop. The report warned against various restrictions, which tended to raise consumption near to the permitted maximum.

Similarly, a report on family and marriage problems showed fears of a rush of divorces following legalization of divorce under the new laws to be groundless. Few Greenlanders sued for and obtained divorce, and in every case after long-standing incompatibility.

The movement and distribution of population was another subject of study. The frequency of moving, distances and adjustment difficulties of migrants were studied together with housing problems in reception townships.

It was common to all these reports that they described a problem from the point of view of existing conditions. In contrast, a number of reports concerned with problems of education proceeded from the political assumption of the need to activate Greenlanders in their province's development and plan their education and training accordingly. The immediate situation called for reschooling courses, the long-term requirement being that education as a whole should be up to Danish standards. This aim was difficult to achieve because schools in Greenland were bilingual and most of the staff monolingual, a fact which in itself reduced teaching quality. The handling of bilingualism was somewhat illusory, as full command was required of Danish but not necessarily of Greenlandic. The report also considered the growing gap between urban and rural schools, and recommended the establishment of residential centres for older children from small settlements.

The education report further indicated political solutions; and it is this report which has perhaps had the greatest influence on legislation. Whether Greenland policies have been determined by previously made decisions rather than by the data provided is an open question, however.

When Copenhagen University established an Institute of Eskimology in 1967, eskimology had existed as a discipline for over forty years. It embraced all the humanities, but was chiefly pursued by the first professor, William Thalbitzer, as philology, and by Erik Holtved, who succeeded him, as philology and ethnology. Although there had been very few students, the discipline's polyhistorical character restricted allround research while it remained under one man.

In the 1950s and 1960s, young scientists began to show greater interest in the social life of Greenland. The eskimologist Bent Jensen has made a long-term study of development at a small settlement in the district of Umánaq, while Inge and Helge Kleivan, in field studies in the south-western area of West Greenland, have explored folklore and relations between seal-hunters and fishermen. The present writer, after first studying hunting techniques, turned eventually to the study of catch-regulat-



Terrace of the hospital at Umanak, in northern West Greenland. The township has about 900 inhabitants. The hospital, built in 1942, has 33 beds and two doctors. The township takes its name from a nearby mountain, 1,175 metres (3,750 ft.) high. The polar night sets in early here. The sun is absent from the seventh of November till the beginning of February.

ing factors, together with ecological variations and their relation to changes in the communal forms.

These studies are mostly incomplete, and comprise only preliminary reports. But they already contain much that is new. An improved definition of the

'Danish' terms and identification of the Greenlandic give to the descriptions greater precision.

In the study of communal forms research into the early economy dominated by whaling and the later seal-hunting economy helped to provide a clearer



distinction between production and consumption. The hunting of right whales called for a certain amount of organization and social stratification, above all for some form of partnership in hunting, in production. The free distribution of whalemeat was more of an individual or family manifestation. In the later economy dominated by sealing, production became on the other hand an individual occupation, the incipient economic inequality arising from this being offset by greater cooperation on the consumer side.

Present-day Greenlanders either live in or have their origins in sealing communities, and so have a tradition of individual production and communal or cooperative consumption. The principle of communal consumption is embodied in rather fixed rules of distribution, which interfere with efforts to form a new fellowhip of production. Especially in hunting districts, it is common to see cooperative ownership of a motorboat restricted to close relations. To go beyond this limit would be to conflict with the rules of sharing, a right due to the other partners. Since transportation of the catch at the peak season constitutes the bottleneck in sealing, and the motorboat is probably the greatest innovation in seal transportation, greater use of motorboats would doubtless enable the hunting population to congregate in larger settlements and yet exploit stocks in a bigger area.

The lack of a productive partnership to match the traditional consumer partnership seems also to restrict development in the townships. Whereas consumer cooperative societies have made fairly good headway, cooperation in the means of production is much slower to develop. However, there are a number of cooperative ventures in ownership of fishing vessels that appear to be viable, especially in cases where surpluses are applied to increasing the capacity.

Even with a marked proliferation of societies - so many as almost to cut across one another - the townships also display a certain lack of community and deficiency in leadership. But if many urban problems seem imponderable, it is partly because they are new and partly because their extent is unknown. An example of how research can contribute in a practical way towards their solution is provided by a recent problem at Godthåb, the largest township. A number of migrants have settled there and have failed to register with the authorities. They are without proper homes, are in poor health, and exhibit a higher crime rate than the regular inhabitants. Bent Jensen plans to analyze this group in order to assess the problem's magnitude and recommend possible solutions.

Of other current projects, Inge and Helge Kleivan are continuing to study problems of change in connection with the transition from hunting to commercial fishing. They are also engaged on problems of linguistic communication. Studies of employment migration, etc are being prepared.

It is of great importance that recognition of the need for social research in Greenland grows with perception of its possibilities. The Danish administration has, over many years, built up a body of statistical material which provides the new research with a certain foundation and a longer perspective.



EDUCATION IN GREENLAND

BY CHRISTIAN BERTHELSEN

Teaching in Greenland's two languages – Greenlandic and Danish – starts in the first class. Danish as a subject was introduced exactly fifty years ago, but has been taught far more effectively in later years, because a thorough grounding in it is essential to any further studies.

A lively discussion has centred on the place of Greenlandic in schools in con-

nection with a new Education Act of 1967, as a shortage of Greenlandic-speaking teachers means that Danish is widely used in the teaching of subjects for which Greenlandic would normally be employed. The Act provides for recommendations from local education committees as to whether to begin teaching in Greenlandic from the first or

the third year, and also to what extent teaching generally shall be in Greenlandic, taking into consideration the number of locally available teachers.

Knowledge of Danish differs widely from place to place, being, as might be expected, best in large townships, with more Danish-speaking teachers and a more Danish environment, and inferior



Education in Greenland is organized on the same lines as elsewhere in the kingdom, with compulsory schooling from the age of seven to fourteen. It is possible to sit for a real (secondary) examination, but the Greenlander who wants to study at a university or college must go to metropolitan Denmark. All pupils in Greenland learn Danish from the first school year. It has not yet been possible to train sufficient teachers who are bilingual in Danish and Greenlandic and so most teachers are from Denmark, speaking only Danish.

in small settlements with an environment almost wholly Greenlandic.

Special textbooks have been prepared for teaching Greenlandic, textbooks for other subjects being in both languages.

The teachers

Greenlandic teachers have formed the core of the permanent staff for many

years, but it has been necessary in the last twenty years to appoint a large number of only Danish-speaking teachers in order to maintain the service. The number of children has risen sharply, owing to an excess birth rate of 4.5 per cent over many years, without a corresponding expansion in the number of Greenlandic-speaking teachers. There has been

a shortage of young people in the age groups from which pupil teachers are normally recruited, while the need for well-trained personnel in other occupations has risen similarly at the same time. As a result, most teachers at present are Danish-speaking only, Greenlandic speakers numbering about a third of the total. The majority of Danish-



The social welfare services are based on the Danish system.
The school dental service, as in the rest of Denmark, is free and compulsory.

speaking teachers are employed in the townships, small settlements being served mainly by Greenlandic speakers.

The schools

There are some hundred school centres along the whole of this extensive coast. The number of children to a school ranges from two or three to nearly a thousand, and under such conditions it is impossible to provide everywhere the full services envisaged in the Act. Residential schools, chiefly for pupils beyond normal school-leaving age, have been established in the main urban centres, while other townships have small school homes for pupils of normal school age from the district.

Greenland can be divided for educational purposes into three main areas: (1) North and East Greenland, where the old occupation of sealing is still a basic means of subsistence; (2) Central Greenland, where the staple occupation is fishing and where industrial establishments have been set up; and (3) South Greenland, with sheep-rearing in scattered districts.

In the hunting areas, schools help to maintain an interest in the occupation of hunting. Kayak rowing is taught in association with the local government authorities, and basic hunting weapons are made at the schools. Girls are taught to dress and stitch furs and skins. The top classes in fishing districts include fishing

and associated techniques. In sheeprearing areas there are two small school homes for children from remote sheep districts.

The vocational education aims chiefly at stimulating interest in the subject and providing introductory guidance. The final practical instruction, especially in the case of hunting techniques, is given by parents.

The structure

Education in Greenland has a history going back nearly 250 years. It was pioneered by the Church, from which it was only separated in 1950. The present State system of education is administered by an Education Authority con-

sisting of elected and official members and with the Governor as chairman. The local education committees, most of whose members are elected, have in time acquired fairly extensive powers.

Attendance is compulsory from the ages of seven to fourteen. This seven-year primary education may be continued for three further years, or the pupil may pass to a two-year preparatory course leading to a two-year Real department. It is possible to transfer to this preparatory course from the fifth, sixth or seventh class.

Provision is also made for voluntary nursery classes, subject to the availability of premises and teachers.

Teaching in the eighth, ninth and tenth classes has a practical slant; that in the *Real* classes, ending in an examination equivalent to the one in Denmark, is more academic. Subjects taught in the eighth, ninth and tenth classes need not be the same as in Denmark, but pupils having the necessary preliminary qualifications may sit for the same examination as in Denmark.

The teachers' training college at Godthåb has exactly the same standard as other Danish training colleges, though history and science are slanted to local conditions and Greenlandic is compulsory. Training in Greenland confers identical rights to that at any other Danish training college; so that teachers who have been trained at Godthåb can take up an appointment anywhere in Denmark, after passing a supplementary test in Danish. The future of teachers' training in Greenland is now under review, in the light of a new Act governing training in Denmark. Greenlanders who wish to study at a university or other advanced college must still go to Denmark.

Apprenticeship training in general subjects like carpentry, machine operating, mechanics and electrical mechanics takes place in Greenland, but advanced technical or technological training still has to be obtained in Denmark.

The future

Great social changes have been taking place in Greenland in the past ten years and the social pattern has been westernized. This rather sudden upheaval, with an increasingly differentiated economy, has created a great need for well-trained people. Half the population of Greenland are under fourteen years of age, which means that many are still receiving education. Consequently, the many new jobs that have been created are having to be performed for the present by people from Denmark.

Great demands are being made on those now growing up. Besides Greenlandic, they have to know Danish, and perhaps another language or two. At the same time, development is restricted by such factors as scattered habitation, occupational demands and the small size of local communities, which are not conducive to educational improvement.

There are divided opinions about development policy, but there is one unalterable fact – Greenland's situation in the Arctic. Old-style hunting can now no longer sustain the population. Living conditions in hunting settlements are of necessity primitive, and there facilities for education will always be limited. Consequently, young people who want

to break away from hunting, or who are 'redundant', must go elsewhere for their education.

Opinions differ about the current policy of concentrating the population in major townships where modern fishing industries can be developed, and certainly considerable social problems result from it. At the same time, it facilitates educational development, and helps young people to attain the modern standards that wil equip them for employment anywhere in Denmark.

PROGRESS AND PROSPECTS

BY JØRGEN FELBO

The Minister for Greenland, Mr. A. C. Normann (born 1904), who is also Minister for Fisheries, is assisted by a consultative council of Greenland and Danish politicians in Copenhagen. All important posts in his department are filled by officials who have served in the province. He travels frequently in Greenland himself.

'Why have a special department for a province?'

'Greenland is so different, in many ways, from other Danish provinces that a special ministry is in my opinion necessary. However, certain matters have been transferred to other departments. For example, in 1965 the police were placed under the Ministry of Justice, and broadcasting now comes under the Ministry for Cultural Affairs. It is possible that other affairs will in time be transferred, although we shall probably need a coordinating Ministry for Greenland for some years to come, because of the need for local and specialized knowledge.

'Is provincial status really wanted in Greenland?'

'That is for Greenlanders to say. But since you ask me, I must answer that Danes and Greenlanders insist equally There is something fascinating in itself about creating in defiance of difficult conditions



Modern fishing industry at Jacobshavn. Greenland's new basic industry has also influenced the building.







Meeting of the Greenland Provincial Council. Under the new Provincial Council Act of 1967, the Council elects its own chairman. The Council has established its own secretariat and taken over the newly established central social administration. The Provincial Council means that the population have an influence on all decrees and administrative decisions. The Council can also voice opinions on Government measures and bills relating to Greenland. The first elected chairman of the Provincial Council is the Greenlander Pastor Erling Høegh, from Julianehåb. For the chairman's view of his country and his duties, see his article, 'Greenland—a Challenge', on page 4.



The Samuel Kleinschmidt School at Godthåb, architects Henning Jensen and Torben Valeur; a new standard type of school, designed by the architects in association with the Greenland Technical Organization. The first phase consists of four wings enclosing a school yard, as shown in the picture. The wings will subsequently be connected with intermediate buildings forming a windscreen.

The buildings are of concrete parapet construction, seen here in the raw concrete. Surmounting the parapets is a wooden construction, which allows full flexibility within the external framework.



With the summer comes feverish building activity. The picture shows foundation work in progress at Sukkertoppen. The township is situated in a region of many ravines, narrow valleys and large and small lakes. Possible building sites have to be concentrated, and the future Sukkertoppen will contain both eight- and ten-storey houses.

on a unified kingdom. To my knowledge, no Greenland politician has expressed a desire for anything but the closest connection between Denmark and Greenland. In Greenland they have said: Greenland a Danish province, neither more nor less!'

'Is Greenland economically an asset to Denmark, or a liability?'

'The question is wrongly put. Who calculates whether a province is an asset or a liability? Surely it's standard practice for provinces to get Government assistance when they need it. That is true of other Danish provinces. But it is a fact that Greenland has received considerable transfers from central funds since 1950, and especially since 1953 when it came under the Danish Constitution. In the period 1950–69 the

'Big transfers are taking place?'

'The population is being concentrated voluntarily, especially in four major townships of West Greenland where fishing can be carried on all the year round. We estimate that by 1975 87 per cent of the population in fishing districts and 34 per cent in hunting districts will be living in towns. In 1945 only 44 per cent of the fishing population and 22 per cent of the hunting population lived in townships. The population as a whole has expanded rapidly. In 1860 it was about 10,000, in 1956 21,000, and in 1967 over 37,000. There is still something of a population explosion, though the rate of growth is tending to fall.'

'What of the employment situation?'
'The principal occupation is fishing.
Exports of fish and fish products in

Who calculates whether a province is an asset or a liability?

amount allocated was just under 4,000 million kroner (about 530 million US dollars). The estimated amounts for 1970, 1971 and 1972 are 600, 619 and 637 mill. kr. (about 84 million dollars). I believe that we are now nearing the peak.'

'What has it all achieved?'

'A society barely comparable with the old Greenland. Let me give one or two examples. Tuberculosis, which up to the 1950s was a scourge, is now well under control. Education has been developed and extended, and still has high priority. Greenlanders can now obtain a schoolleaving certificate fully corresponding with the one obtained in the rest of Denmark; and teachers trained in Greenland have the same qualifications as their Danish colleagues. Thousands of new houses and apartments have been built, most of them fully up to date by Western European standards. New houses are still being built and old dwellings cleared. Of the 4,200 listed in 1955, some 1,200 had gone by 1965 as a result of clearance or removal.'

1967 totalled just under 76 mill. kr. (10 million dollars). Fishing has developed continuously in the last few years. Processing factories have been built and the fleet expanded and modernized. The first trawler has been acquired this year, and more will come. But just as in many other countries, the industry is passing through difficult times. Competition is intense and prices low. However, we think that Greenland products will be able to hold their own by their high quality.'

'There has been a lot of talk about mineral exploration.'

'Greenland has long had an important export mineral in cryolite and the Geological Survey of Greenland has for a long time carried out mineralogical research. This spring the Folketing has debated an amendment to the Greenland mining law, laying down regulations for exploring and exploiting mineral deposits. Some deposits have already been located and many Danish and foreign companies have expressed interest in or are already carrying out explorations. So

far, five exploratory licences and eight research concessions have been granted, five of these to companies chiefly financed by foreign capital. The Ministry has before it at the moment twelve applications for research concessions, nine of them for oil.'

'What of tourism?'

'There can be little doubt about that. We have had many tourists in recent years. Passenger traffic to and from Greenland, now chiefly by air, has risen enormously. We reckon on nearly 50,000 in 1975. A lot of problems are involved, however, and so we have decided to appoint a committee of experts to analyze the requirements. I think it extremely likely that with its extraordinary scenic beauty, and the possibilities which it offers to anglers, Greenland is capable of becoming fine tourist country by the end of the century. Perhaps foreign investors will also be interested in this.'

'Foreign scientists and sportsmen?'

'Greenland is visited every year by many foreign expeditions, which must make application in Copenhagen. They include both scientific expeditions, many with Danish members, and sports expeditions for mountaineering or sledging. Danish scientists have gained many foreign contacts in Greenland over the years. I intend to explore possibilities of developing these, expecially in the sociological field. We should be able to learn from our arctic neighbours — Canada, the United States and the Soviet Union — as they may be able to learn from us.'

'How would you sum up the situation in Greenland today?'

'Greenland is a Danish province with considerable immediate difficulties and great potentialities. The process of readjustment, which was speeded up when Greenland ceased to be a colony in 1953, has meant a tremendous advance for the province and its people. But this rapid development has its psychological and social side-effects, which the Government and the Provincial Council are doing their best to remedy. The modern development of Greenland is after all a rather unique experiment in the world of today. Whatever the future may hold, it seems to me that the political and social cooperation of Greenlanders and Danes has given it a good start. No doubt we are still a long way from a real stabilization of conditions in the province; understandably so in view of the short space of time that has elapsed since the new development was initiated. It will continue to be a major aim to facilitate human adjustment to the new society that has changed so radically from the old, and that will go on changing almost from week to week. Greenlanders express confidence in the future, based on loyal cooperation with their Danish compatriots. On the same basis, I agree unreservedly with their judgment.'

THE BREAK WITH TIMELESSNESS

BY PALLE KOCH

One seldom comes to mistake an international airport for a rest home, but when I think of the stops – voluntary and involuntary – at Søndre Strømfjord I find it difficult to recall my state as anything but a convalescent's. When the day's DC-8 had completed its touchdown and had vanished into the blue sky, when the roar of the engines had concluded its agitated dialogue with the echo from the mountains and the fuel's

lavishly drawn exhaust flourish had been dissipated high up over the fjord, we who remained were surrounded once more by the great Greenland silence. And that — according to whoever encounters it — is balm for the soul or a source of great, gnawing restlessness.

Once at Søndre Strømfjord you are no longer the master of your fate, for there are no means of escape. Some day your



journey can be continued, but when? No-one at Søndre Strømfjord can tell, and so you are best off by yourself, if you are able to play the fatalist and refuse to be upset by the sight of planes you are not travelling by. You settle in like a resident, and gratefully accept the free entertainment offered to you when, once daily, the great world performs its touch-down repertoire in the transit lounge you have almost grown to regard as your private drawing-room.

Who were we, the residents?

A motley collection of jetsam washed

up between low mountains at the head of a deep West Greenland fjord. Surrounded by wilderness and timelessness, but each in his way involved in the moment, in Greenland's break with thousand-year patterns and traditions.

The lounge of the Søndre Strømfjord hotel reflects in flashes the development and the break. This is the place where novices with a ticket to somewhere on the coast can get experience from veterans who are going home to Denmark; a clearing house for exchange of big news and little, a forum for dabbling in poli-

tics, a club where you can always be sure of running into old acquaintances or establishing new contacts.

Corridor of history

Greenland's recent history could be written by somebody who cared to sit there long enough. He could get his raw material by taping the conversations of everyone waiting there. There sooner or later he would meet the Minister, the Chairman of the Provincial Council, officials, heads of institutions; young studious

Street scene at Narssaq, with modern houses of wood painted in vivid colours.



Greenland, Danish workmen, technicians; education, church and health service personnel; scientists who study the sea or the rocks, or try to analyze what is going on in new townships along the coast.

What is going on during the break? How do people react?

There are many others besides scientists who can tell. All who come from coastal townships, a couple of flying hours away, can contribute to the picture of Greenland's break with the past. They can report encouraging and dis-

heartening things. Their accounts will be disjointed, and full of the most glaring contrasts; and if the history writer at Søndre Strømfjord were to stay long enough to meet the same people again at half-yearly intervals, he would not get the old reports confirmed. Much would be totally changed.

The immutable Greenland lies today outside the township, by mountain and fjord. Once it was hunting ground; soon it will be recreational area for urbanized Greenland.

The immutable Greenland is the abandoned settlements. Stillness there can seem more intense than stillness in the wilds, intensified as it is by the emptiness of the huts where once there was life. To sail into an abandoned settlement is to encounter silence in its most oppressive form. But there, too, the new era will one day appear; when children from the nearest town recapture the lost land of their grandparents and for some weeks of summer experience the immutable Greenland through the camp school established for them there.

The square at Julianehåb, bounded on the right by the Royal Greenland Trade Department's new store, and, on the left, by the sail warehouse, official residence, general store and bakery (also new). The church in the background is from 1832. The square is a characteristic example of an earlier Greenland environment, which still manages to survive. Efforts are now being made to conserve these typical environments, and the trading office at Julianehåb has already been restored.



Encounter with the past

The immutable Greenland can exceptionally cling to the totally changed. I have seen it only fifty yards from a procession of official limousines: a hunting family in their summer encampment by the frozen fjord; a bit of the old Thule culture just below the road leading to Thule Air Base at Dundas.

It was an improvised and surprising encounter outside the strict schedule of a ministerial visit when Denmark's Prime Minister and the Minister for Greenland walked down to the tent in order to meet the family. Its head turned out to be an historic figure in the annals of Danish-Greenland polar research: Qavigarssuaq Miteq, called Eider Duck, the last surviving member of the Fifth Thule Expedition, the Great Sledge Journey, which took the explorer Knud Rasmussen and his two companions, Miteq and the girl Arnarulunguaq, from Thule, round the north of the American continent to the Pacific coast.

Here was Eider Duck, 67 years of age but still going strong, in his ancestral polar realm, a handsome and imposing representative of the immutable and unconquerable Greenland. Fifty yards from a motor road, but with his tent facing the hunting ground on the fjord. Fifty yards from a motor road, with his sledge and his dogs as his only, natural means of transport. Half an hour's journey from the great base with its science fiction, modern conveniences and supplies; yet in Eider Duck's camp the menu depended on the luck of the hunt. That has always been so in the immutable Greenland of the Eskimos.

Backward in time

One can still see Greenland hunters offer good juicy reindeer meat for sale outside the well-stocked supermarket. It can compete with deep-frozen food from Denmark. And if it is rumoured that a fishing boat has landed a whale, it takes a lot to stop old wives of Godthåb from shambling down to the beach with a flensing kinife in one hand and a plastic pail in the other. Blubber and whalemeat are worlds removed from broiler fowls.

The Greenland of change is strong enough to allow these 'relapses' into the past. Even old people can settle for the new times and find it acceptable to be housed in a modern block. Some are old enough to remember the train-oil lamp as a source of light, but have nothing against its replacement by electricity.

Or – to take things in reverse order – I remember my own reactions after a few winter days spent in a West Greenland settlement, with little in the way of modern conveniences. A day's journey by dog sledge had taken us far back in time, beyond anything connected with

Sand beds in Disko Bay. A Greenland landscape can take many forms.



To live there is to learn a lot about patience



electricity. The first day after our return to the district's township, I several times caught myself trying to 'turn up the wick of the petroleum lamp', now very electrical again. I had got out of the habit of electrical switches in an astonishingly short time; and no doubt had temporarily switched off from the present. It must be like that in a country where it is possible to step from helicopter to dog sledge.

On our winter journey with the dogs we were transported centuries back, once we had pushed past the bulldozed snow banks on the township's outskirts. These barriers, products of modern technology, were to prove the most difficult obstacle of the journey. A new era's fortification, the limits of a developing society that leaves little trace of the tiny township which represented the first phase of a European pattern of living!

Old buildings are held in veneration, though often they stand in the way of progress. They are scheduled, painted up in fine vivid colours; and so buy indulgence for all the grey concrete drabness now being introduced into the township. Thus suitable picture-postcard subjects are being preserved, for future heads of Greenland travel boards to appreciate.

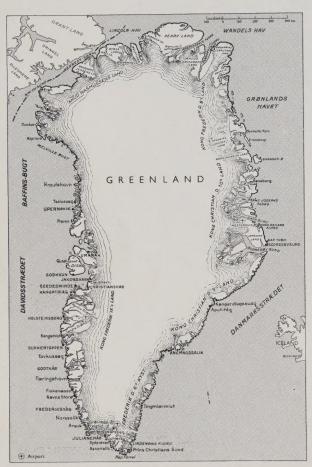
New outlooks

It is a summer evening, with a sun that refuses to drop behind the horizon. On the rocky outlook above the township, Greenland families sit looking down across their new town and out over their old land. They see a new factory and a new harbour pier; they see a school and an oldish hospital with new annexes; they see an electric power station and a waterworks, with a network of mains electrically heated so as to ensure allyear supplies; they see primitive but serviceable roads with hard-working trucks, and pleasure-loving taxis with built-in record players. Young Greenland amuses itself trundling through the streets to beat music – for the township's entertainment is not yet fully developed to Western standards.

The families up on the rock also have their music. On their transistor they can choose between the programme from Godthåb and the one from Canada; unless they prefer the unofficial third programme broadcast from ships and fishing vessels of the coast. It is by fishing craft that the new standard of living must be got that is being planned for. If fisheries function, if they become competitive and remunerative, some inevitable accompaniments of the great break, its adjustment difficulties and social backwardness, will be mitigated, and the towns will become towns in name and in fact in this country of opposites. For the time being, we can take comfort in the thought that the country's capital bears optimism in its name: Godthåb means Good Hope.







Scale approx. 1:50,000,000

ERLING HØEGH, clergyman and politician, is the first democratically elected chairman of the Landsråd (Provincial Council) of Greenland, a post he has held since 1967. He was born at Julianehåb in 1924 and became a teacher in his native town in 1948. Later he went to Copenhagen to study divinity and graduated from Copenhagen University in 1953. In 1958 he reurned to his native town as vicar. He has been a member of the Landsråd since 1955.

PALLE KOCH, journalist, covers Greenland for the Copenhagen daily *Information*. In the years 1962–66 he made numerous visits to Greenland. His book *Der skal være så smukt på Grønland* ('Greenland is so beautiful, they say') – published by Gyldendal in 1968 – was praised by Danish critics as a weighty and well-balanced contribution to the Greenland debate.

HENNING JENSEN, architect and furniture designer. In collaboration with his partner, architect Torben Valeur, he has designed schools, colleges and other institutional buildings in Greenland.

CHRISTIAN HØY went to Greenland as a miner, but having decided to make the island his future home he took up fishing. After ten years as master of a fishing vessel engaged in inshore fisheries he is now attending the School of Navigation at Godthåb. 'I feel that I can't leave Greenland', he says. 'The ten years at sea up here have been tough for me and my men, but highly satisfactory. I do not think that I can do without the scenic beauties of Greenland and the exciting life of a Greenland fisherman.'

ROBERT PETERSEN was born at Sukkertoppen, Greenland, in 1926. Assistant professor in the Institute of Eskimology of the University of Copenhagen and scientific assistant in the Ethnographical Department of the National Museum. Graduated in Greenland philology from the University of Copenhagen. Has participated in several scientific expeditions to Greenland and North Canada. Director of the National Museum's Ethnological Survey of Greenland, 1959–65. Has contributed numerous articles on Greenland, including an article about the last Eskimo immigration into Greenland from Canada.

CHRISTIAN BERTHELSEN was born at Godthåb, Greenland's largest township. After graduating from the teacher's training college at Godthåb, he has pursued postgraduate studies in Copenhagen. Has been teaching in Greenland since 1955. In 1961 he was appointed Director of Education in Greenland.

JØRGEN FELBO, journalist, covers Greenland for the Copenhagen daily *Berlingske Tidende*. From 1956 to 1958 he was editor of the only bilingual newspaper in Greenland, the Atuagagdliutit/Grønlandsposten. During the same period he was also news editor of Radio Greenland. Editor of the magazine *Greenland* published by the Greenland Society in Copenhagen.

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